CLMPTO

01/29/02

1-8 Cancelled

Please amend as follows:

9. (Amended) In an RF communications network having a communication channel, an access point and a portable data collection terminal, wherein the portable data collection terminal having a transceiver which may be selectively powered up or down to conserve energy, a method used by the portable data collection terminal for gaining access to the communication network, comprising the steps:

(a) powering up the transceiver;

(b) sensing the communication channel for a first predetermined time;

(c) if during the sensing of the communication channel the channel remained clear, transmitting to the access point; and

(d) if during the sensing of the communication channel the channel did not remain clear, waiting for a second predetermined time, and branching to step (b).

16. The method of claim 12, wherein said first predetermined time is greater than or equal to the maximum time between the access point's transmissions when engaged in a communications exchange.

21. In an RF communications network having a communication channel, an access point and a portable data collection terminal, wherein the portable data collection terminal having a transceiver which may be selectively powered up or down to conserve energy, a method used by the portable data collection terminal for gaining access to the communication network, comprising the steps:

(a) powering up the transceiver;

(b) resetting a retry count;

(c) sensing the communication channel for a first predetermined time;

(c) if during the sensing of the communication channel the channel remained clear, transmitting to the access point, else, if the channel did not remain clear, incrementing a retry count; and

(e) if the retry count is less than a threshold value, branching to step (c), else, powering down the transmitter for a period of time before branching back to step (a).

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12. In a local area communications network having a communication channel, a host computer, an access point, and a portable data collection terminal, wherein the portable data collection terminal has the capability to enter a sleep mode when not transmitting or receiving, and the access point periodically transmit SYNC messages, a method used by the portable data collection terminal for gaining access to the communication network, comprising the steps:

(a) waking up when data is available for transmission to the host computer;

(b) waiting for a first predetermined time in order to receive a SYNC message from the access point;

(c) sensing the communications channel for a second predetermined time to determine if the channel is busy;

(d) transmitting a request for poll to the access point if the channel is clear for the second predetermined time; and

(e) if the channel is busy during the second predetermined time, repeating step (b).

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13. The method of claim 12, wherein said first predetermined time is greater than or equal to the time between SYNC messages minus the maximum interpoll gap time.

14. The method of claim 12, wherein said second predetermined fixed time is greater than or equal to the maximum interpoll gap time.

15. A method used by a sending device for beginning a data exchange over an RF communication link with a polling device, wherein the polling device has an interpoll gap time, comprising the steps of:

(a) identifying that the RF communication link is clear throughout a period which is at least as long as the interpoll gap time; and

(b) transmitting a request for poll frame.

16. The method of claim 15 further characterized by the steps of:

(a) generating a pseudo-random number corresponding to a first pseudo-random time which is at least as long as the interpoll gap time;

(b) sensing the channel for a time substantially shorter than the first pseudo-random time;

(c) repeating step (b) until the channel is detected as being busy, or the channel is detected as being clear at every sense until the first pseudo-random time is reached;

(d) if the channel is detected as being busy, executing a second pseudo-random time delay back-off and returning to step (a); and

(e) if the channel has been detected as being clear for the entire first pseudo-random time period, transmitting a request for poll frame.

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17. The method of claim 16 wherein step (d) further comprises the step of incrementing a retry counter and testing said retry counter such that a second pseudo-random back-off and retry will not be performed if said retry counter is above a predetermined threshold value.

18-20 Cancelled